The resilience of *Oculina arbuscula* to <u>Ocean</u> Acidification and how it relates to Georgia rivers

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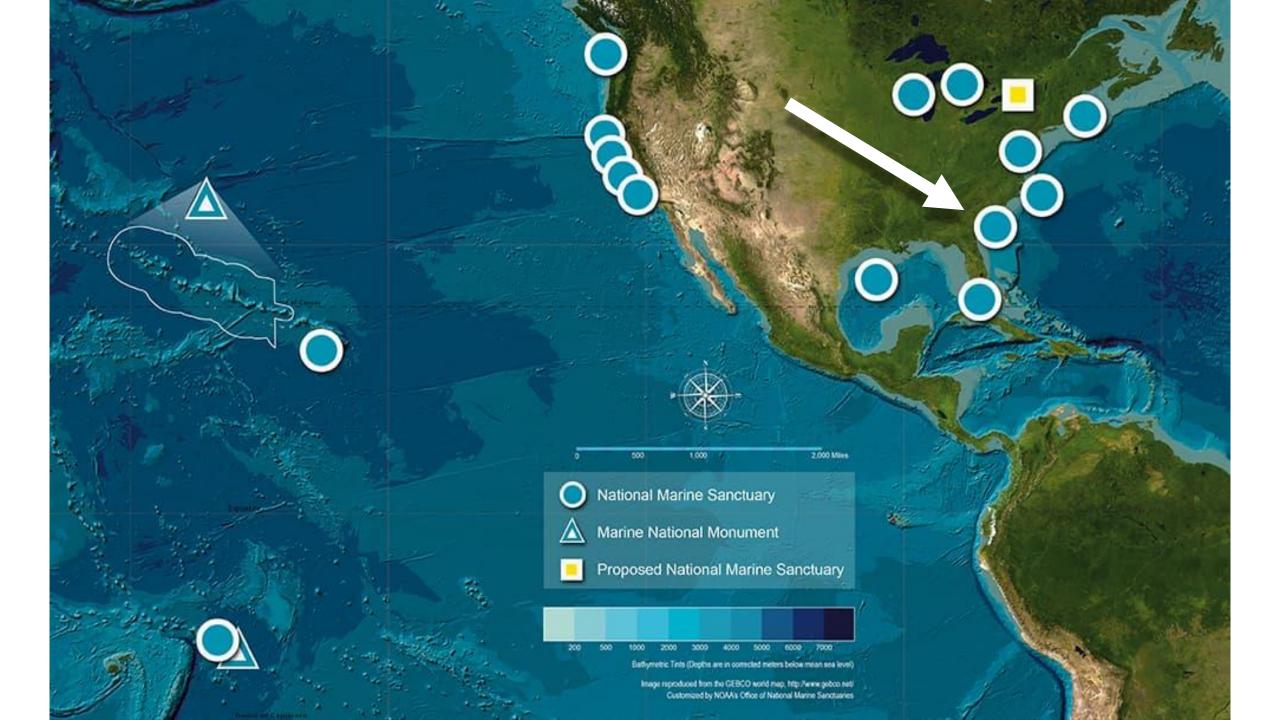






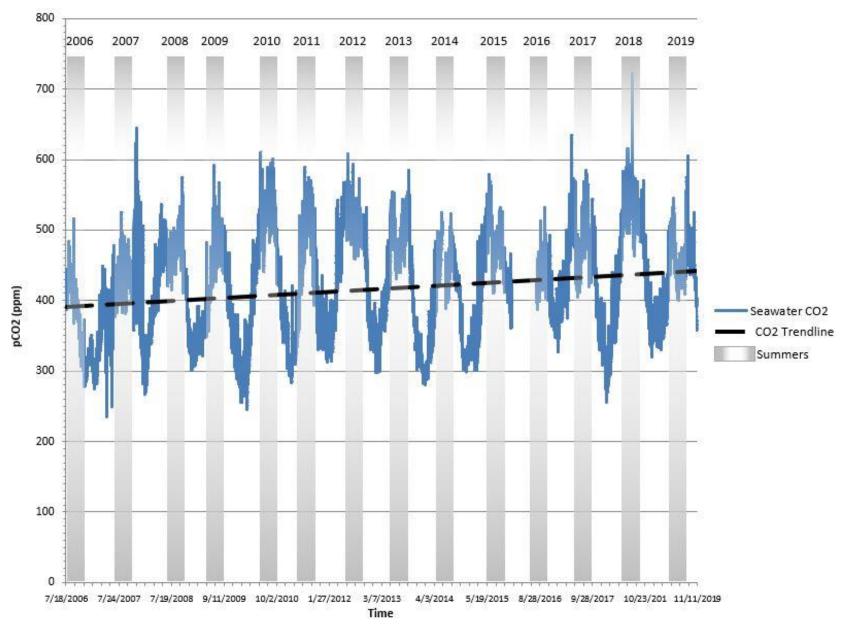






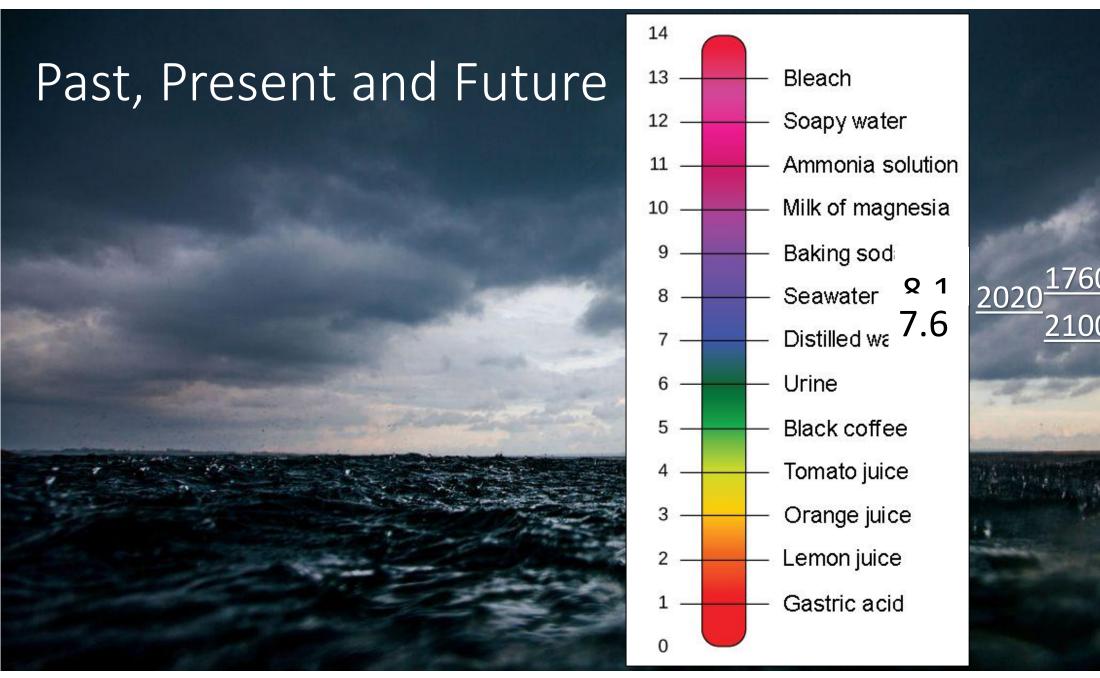




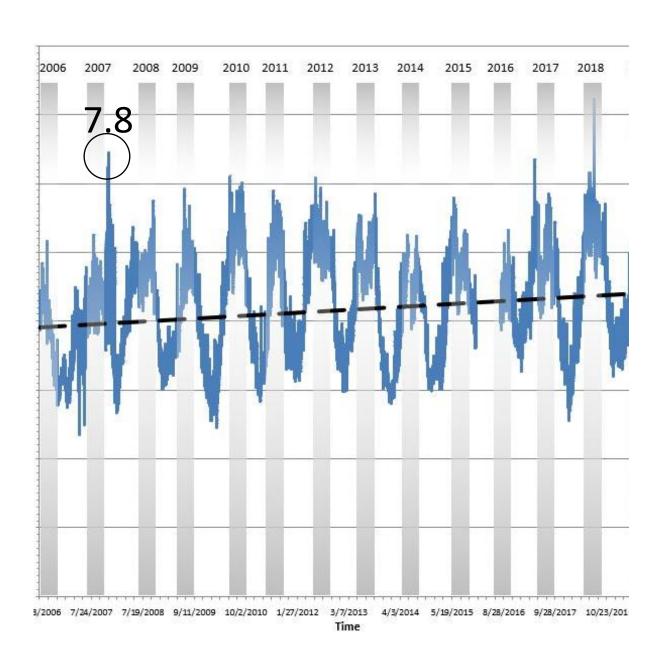


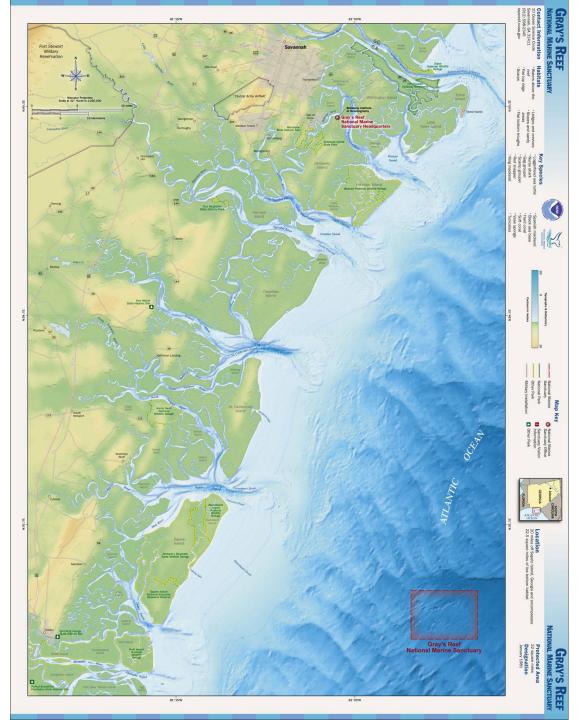
Noakes S. Carbon dioxide and water quality monitoring in Gray's Reef National Marine Sanctuary, 2006-2019.

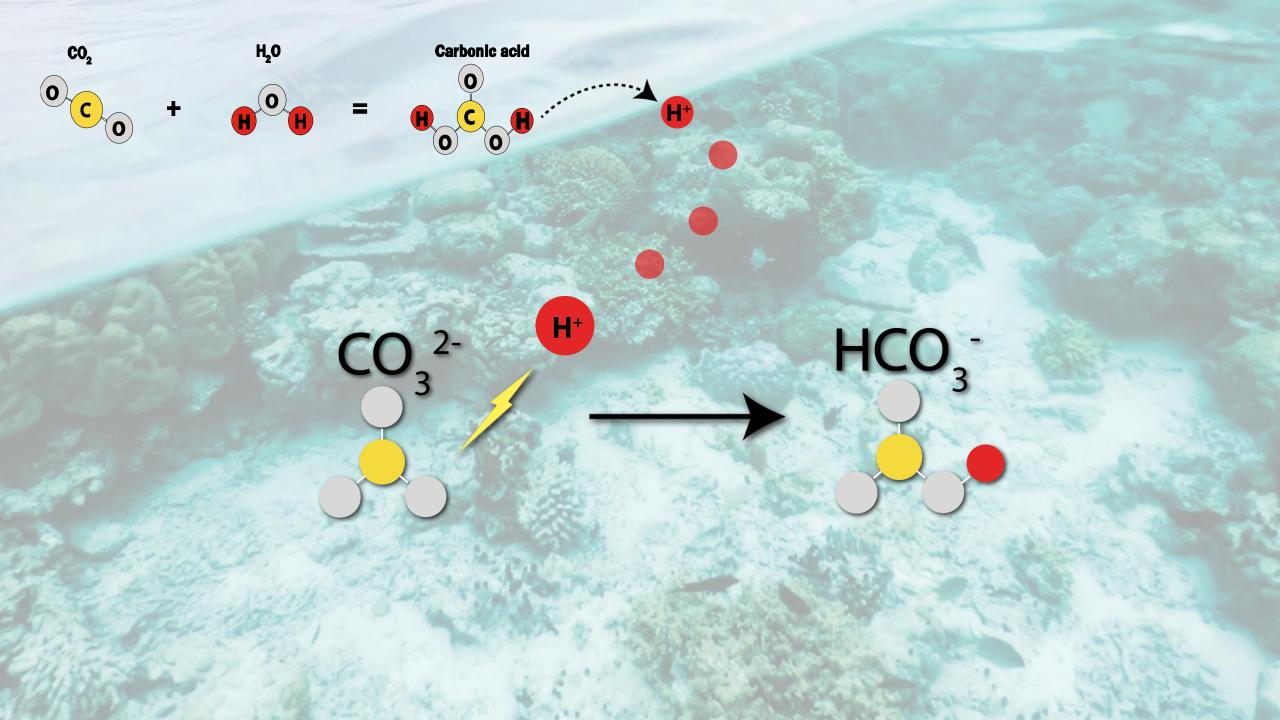
Ocean Acidification **Carbonic acid** CO, H,O $CO_2 + H_2O \leftrightarrow H_2CO_3$



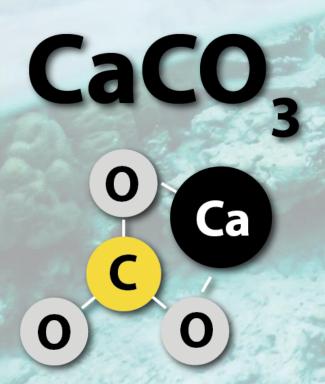




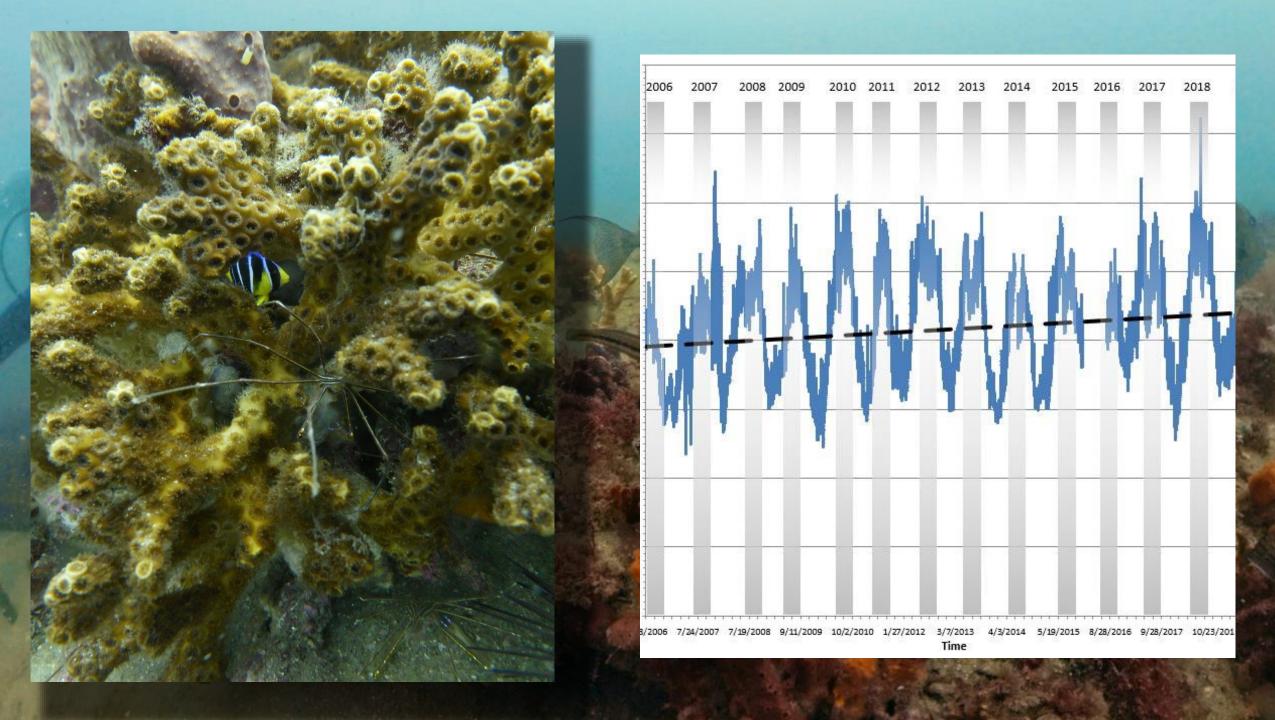


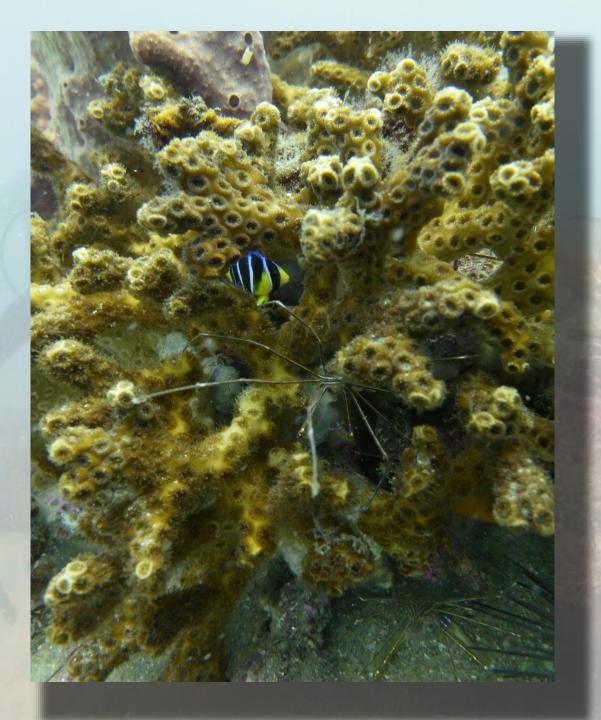


Calcifying organisms



- ✓ Phytoplankton
- ✓ Zooplankton
- ✓ Oysters
- ✓ Corals

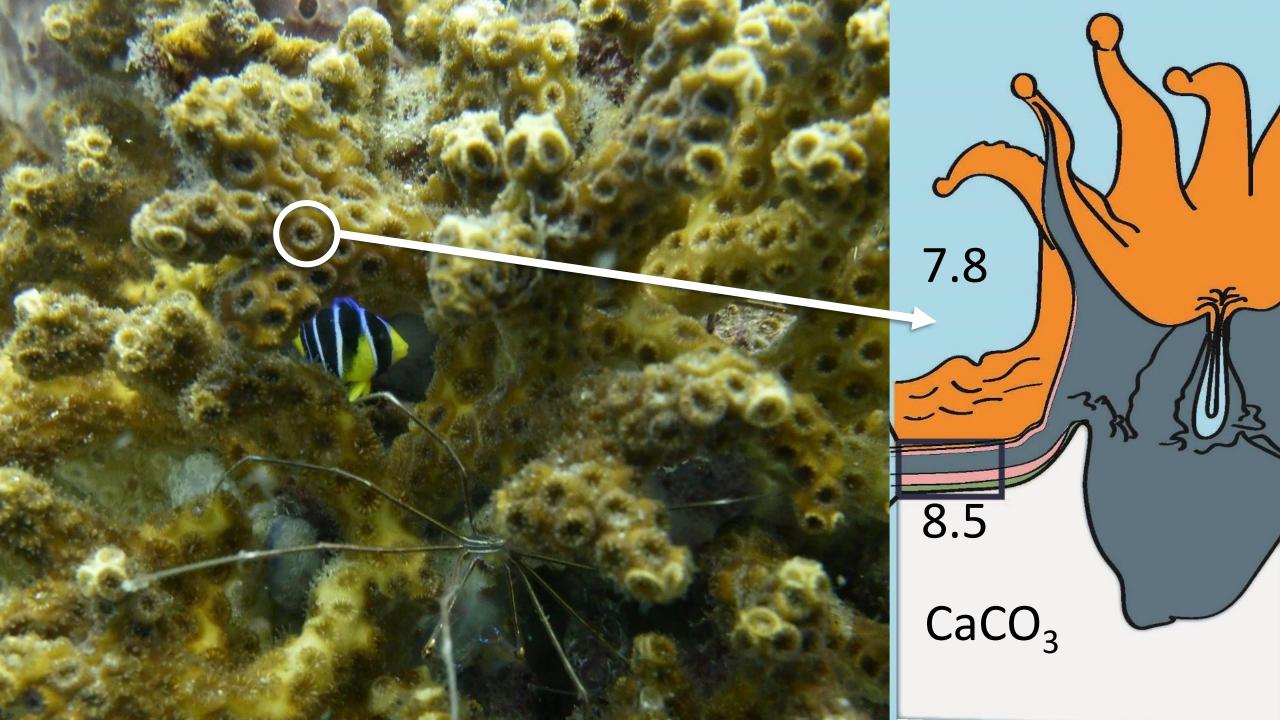




Oculina arbuscula

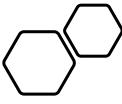
- ✓ Acclimated to seasonal variations
- ✓ Resistant to changes in growth rates

☐ How?





How do they react with multiple stressors?



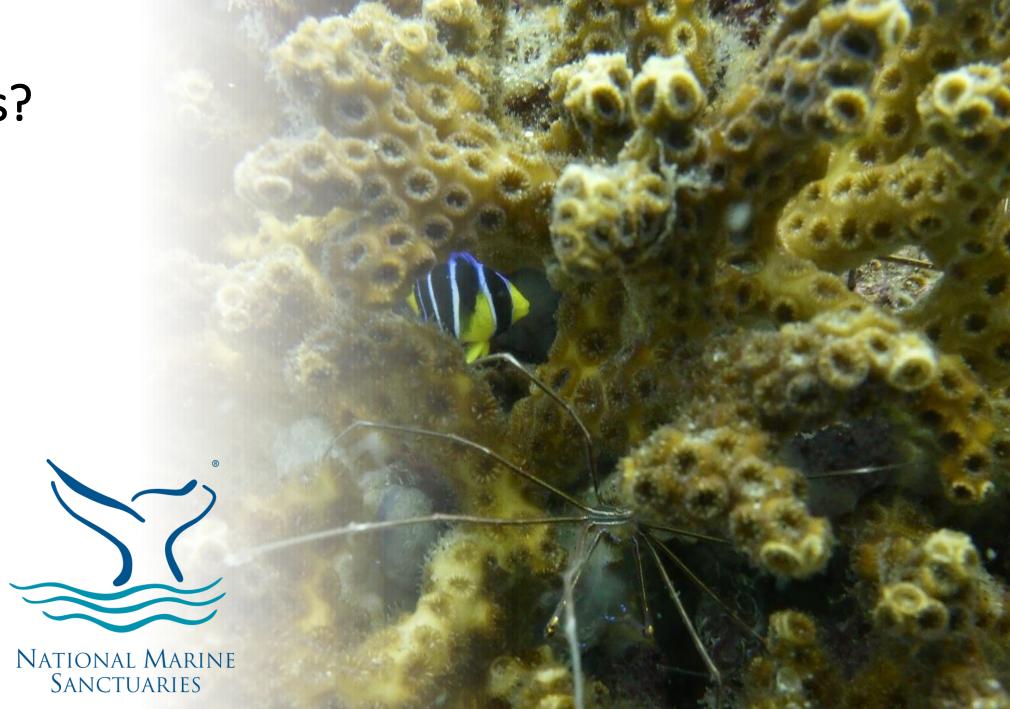


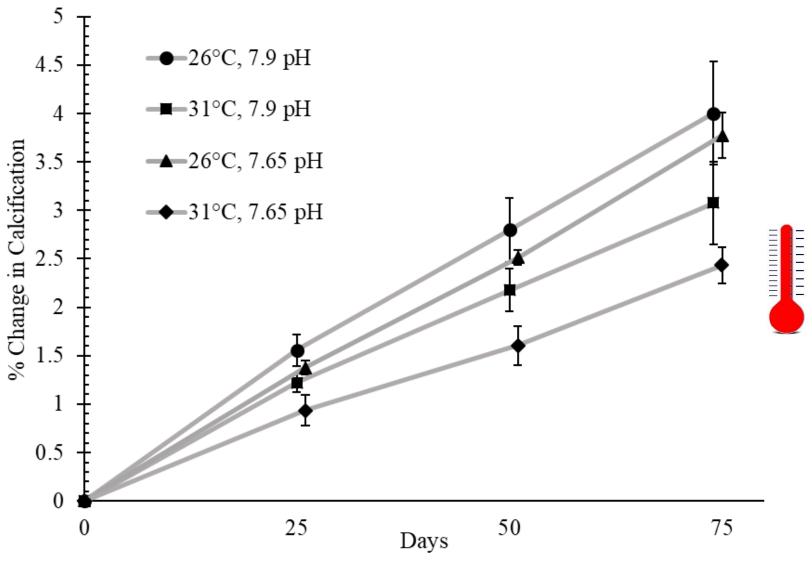
How do Rivers Relate?

- ☐ Terrestrial organic matter
- □ Pollution
- □ Eutrophication
- □ Temperature
- □ Turbidity
- **□**....









Rogers, S. The combined effects of pH and temperature on the physiology of the temperate coral Oculina arbuscula (2019). Honors College Theses. 427.

